Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A heparin-binding peptide ~~of the formula $R_1(X_1B_1B_2X_2B_3X_3Y_1R_2)_nR_3$ or $R_1(X_1B_1B_2B_3X_2X_3B_4X_4Y_1R_2)_nR_3$ wherein:~~

~~X_1, X_2, X_3, and X_4 are independently selected from the group consisting of hydropathic amino acids;~~

~~B_1, B_2, B_3, and B_4 are independently selected from the group consisting of basic amino acids;~~

~~Y_1 is independently~~

~~(i) zero amino acid residues, or~~

~~(ii) one to ten amino acid residues, wherein at least one of said amino acid residues is proline;~~

~~n is an integer from one to ten;~~

~~R_1, R_2, and R_3 are independently selected segments containing from zero to twenty amino acid residues, provided, at least one of the segments R_1, R_2, and R_3 comprises at least one hydrophobic amino acid residue; and~~ consisting of an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:5, SEQ ID NO:8 and SEQ ID NO:37,

wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

2. – 29. (canceled)

30. (original) A pharmaceutical composition comprising at least one peptide of claim 1 and a pharmaceutically-acceptable carrier.

31. (withdrawn) A method of reducing plasma heparin levels in a subject in need of such treatment, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1, in an amount effective to reduce said plasma heparin levels in said subject.

32. (withdrawn) The method of claim 31, wherein said subject is a human.

33. (withdrawn) A method of reducing the anticoagulant effects of a heparin in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1, in an amount effective to reduce the anticoagulant effects of said heparin.

34. (withdrawn) The method of claim 33, wherein said subject is a human.

35. – 48. (canceled).

49. (withdrawn; currently amended) A conjugate comprising a heparin-binding peptide according claim 1 ~~or claim 35~~ conjugated to at least one active agent.

50. (withdrawn) A conjugate according to claim 49, wherein said active agent is selected from the group consisting of a cytotoxic active agent, a hormone, a peptide, an antibiotic, a nucleic acid, a radionuclide, an anti-inflammatory active agent, and a polysaccharide.

51. (withdrawn) A method of delivering at least one active agent to a tissue or cell displaying high levels of glycosaminoglycans or proteoglycans, said method comprising administering a pharmaceutical composition comprising at least one conjugate of claim 49 and a pharmaceutically acceptable carrier, wherein said conjugate binds to said glycosaminoglycans or proteoglycans and delivers said at least one active agent to said tissue or cell.

52. (withdrawn) The method of claim 51, wherein said tissue or cell is selected from the group consisting of blood vessels, connective tissue, cartilage and endothelial cells.

53. (withdrawn; currently amended) A method of treating a mast cell serine protease-associated disorder in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1 ~~or claim 35~~ and a pharmaceutically acceptable carrier in an amount effective to treat the mast cell serine protease-associated disorder.

54. (withdrawn) The method of claim 53, wherein said protease is chymase or tryptase.

55. (withdrawn) The method of claim 54, wherein said mast cell serine protease-associated disorder is selected from the group consisting of inflammation, allergic reaction, rheumatoid arthritis, and microbial infection.

56. (withdrawn; currently amended) A method of treating a microbial infection in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one heparin-binding peptide according to claim 1 ~~or claim 35~~ in an amount effective to treat the infection.

57. (withdrawn) The method of claim 56, wherein said pharmaceutical composition is administered topically.

58. (withdrawn) The method of claim 56, wherein the microbial infection is a bacterial infection or a fungal infection.

59. (withdrawn) The method of claim 58, wherein the bacterial infection is selected from the group consisting of an *Enterococcus faecalis* infection, an *Escherichia coli infection*, a *Pseudomonas aeruginosa* infection, and a *Proteus mirabilis* infection.

60. (withdrawn) The method of claim 58, wherein the fungal infection is a *Candida albicans* infection.

61. (currently amended) A conjugate comprising a heparin-binding peptide according to claim 1 ~~or claim 35~~ conjugated to at least one carrier molecule.

62. (original) A conjugate according to claim 61, wherein said carrier molecule is selected from the group consisting of collagen, hyaluronic acid and agarose.

63. (original) A conjugate according to claim 61, wherein said carrier molecule is further conjugated to a surgical sheet or mat.

64. (withdrawn) A method of reducing the anticoagulant effects of a heparin in a subject, said method comprising administering to said subject a pharmaceutical composition comprising at least one conjugate according to claim 61 and a pharmaceutically acceptable carrier, in an amount effective to reduce the anticoagulant effects of said heparin.

65. (withdrawn) The method of claim 64, wherein said pharmaceutical composition is administered locally.

66. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:1, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

67. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:5, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

68. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:8, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

69. (new) The heparin binding peptide of claim 1 consisting of the amino acid sequence SEQ ID NO:37, wherein said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

70. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

71. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

72. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding

peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

73. (new) The pharmaceutical composition according to claim 30, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

74. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

75. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

76. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

77. (new) The method according to claim 31, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

78. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

79. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

80. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

81. (new) The method according to claim 33, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

82. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

83. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally

comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

84. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

85. (new) The conjugate according to claim 49, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

86. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

87. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

88. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

89. (new) The method according to claim 51, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

90. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

91. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

92. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

93. (new) The method according to claim 53, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

94. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

95. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

96. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

97. (new) The method according to claim 56, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

98. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

99. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

100. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally

comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

101. (new) The conjugate according to claim 61, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

102. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:1, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

103. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:5, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

104. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:8, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.

105. (new) The method according to claim 64, wherein the heparin binding peptide consists of the amino acid sequence SEQ ID NO:37, and said heparin-binding peptide optionally comprises an amino-terminal protecting group or a carboxy-terminal protecting group, or both an amino-terminal protecting group and a carboxy-terminal protecting group.